

In the Claims

The following listing of the claims replaces all previous listings of the claims.

1. (Original) A method of making a universal gas combustion chamber for use in a plurality of different prefabricated gas fireplace units, comprising the steps of:
 - mixing refractory ceramic fibers (RCFs) with a solution of inorganic binder to form a thick paste slurry,
 - molding said thick paste slurry into an open box shape fireplace having a plurality of panels comprising a floor panel, at least two side panels and a top panel,
 - removing said open box fireplace from its mold,
 - firing said panels to form a non-porous impact resistant open box of panels of a gas fireplace combustion chamber,
 - assembling stack means, trim means, burner means and said plurality of panels into the gas fireplace combustion chamber to provide said different gas fireplace units, and
 - sealing the joints between said stack means and said trim means, to form unique fireplace units having a reinforced non-porous gas tight gas combustion chamber.
2. (Original) A method as set forth in claim 1 wherein the step of sealing further comprises applying a binder which comprises an aqueous solution of inorganic binder.
3. (Original) A method as set forth in claim 2 which further includes the step of machining flanges on the box opening for attaching said trim means to at least one of said panels.
4. (Original) A method as set forth in claim 1 wherein said step of molding comprises providing an opening in at least one of said panels forming an exhaust stack aperture in said top or back panel.
5. (Original) A method as set forth in claim 4 wherein said step of assembling said burner means includes making an opening in at least one of said panels which comprises gas burner port apertures in said floor panel.

6. (Original) A method as set forth in claim 1 which further includes the steps of,
providing flanges on said top panel and said floor panel,
providing flanges on said side panels, and
the step of assembling said fireplace further comprises attaching said trim means to said
flanges and door means to said trim means to complete said non-porous gas tight combustion
chamber.

7. (Original) A method as set forth in claim 1 wherein said open box shaped fireplace
comprises at least one substantially flat steel back panels, and
overlapped the mating edges of said steel panel to other panels to form a gas tight heat
exchanger panel.

8. (Original) A universal open box combustion chamber for use in a plurality of different
types of fireplaces comprising,
a floor panel,
a top panel,
two side panels,
said floor panel, said top panel and said side panels each comprising a mixture of vitreous
alumina silicate fibers and an aqueous solution of binder formed and dried after molding to
provide a gas tight and impact resistant box of panels of a fireplace combustion chamber,
glass door means attached to said panels to provide a gas tight closed box fireplace, and
burner means supported by said floor panel.

9. (Original) A universal combustion chamber as set forth in claim 8 wherein said burner
means is supported above said floor panel, and
apertures in said side and floor panels for connecting air and gas to said burner means.

10. (Original) A universal combustion chamber as set forth in claim 8 wherein said burner
means comprises a single open U-shaped panel adapted to seal against said floor panel.

11. (Original) A universal combustion chamber as set forth in claim 8 which further comprises a plurality of flat back panels sealed at their mating joints to other panels to form a gas tight combustion chamber.

12. (Original) A universal combustion chamber as set forth in claim 8 wherein said burner means comprises connecting panels having flat mating joints, and
a self hardening high temperature adhesive applied in said joints of said burner means to further assure a gas tight seal.

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13. (Original) A universal combustion chamber as set forth in claim 11 which further includes corner reinforcing means attached to corners of said sidewall panels.

14. (Original) A method of making a universal gas combustion chamber for use as a component of a fireplace unit, comprising the steps of:

mixing vitreous alumina fibers with an aqueous solution of inorganic binder to form a thick castable slurry,

forming said thick castable slurry on a forming mold to build up a desired predetermined thickness non-rigid fireplace combustion chamber having an open side for supporting door means and a floor for supporting a gas burner,

drying said formed combustion chamber on the mold to provide an uncured stiff one piece combustion chamber,

stripping away the forming mold, and

heating said uncured one piece combustion chamber at firing temperature to form a rigid non-porous impact resistant combustion chamber ready for assembly of said door means and gas burner to form a unique fireplace.

15. (Previously Presented) The method as set forth in claim 14 which further includes the steps of forming pluggable apertures in the side or top panels for attachment of an exhaust stack.

16. (Original) The method as set forth in claim 14 which further includes the steps of supporting a gas burner unit on the floor panel, and

providing apertures in said fireplace unit through which fresh air for combustion is conducted to said gas burner.

17. (Previously Presented) The method as set forth in claim 16 which further includes attaching door means to said open side of said combustion chamber.

18. (Original) The method as set forth in claim 17 wherein the step of attaching door means comprises the step of sealing a glass door panel to the vertical and horizontal edges of said open side of said fireplace combustion chamber.

19. (Previously Presented) A universal open box combustion chamber for use in a plurality of different types of fireplaces comprising:

a floor panel;

a top panel;

two side panels;

said floor panel, said top panel and said side panels each comprising a mixture of refractory ceramic fibers and an aqueous solution of binder formed and dried after molding to provide a gas tight and impact resistant box of panels of a fireplace combustion chamber;

glass door means attached to said panels to provide a gas tight closed box fireplace; and burner means supported by the floor panel.

20. (Currently Amended) An open box combustion chamber for use in a plurality of different types of gas fireplaces, comprising:

a one piece fireplace combustion chamber comprising a mixture of refractory ceramic fibers and a binder, wherein the one piece fireplace combustion chamber comprises a substantially horizontal floor panel; and

a burner positioned relative to the floor panel to provide a flame within the combustion chamber.

21. (Previously Presented) The combustion chamber of claim 20, further comprising a front panel coupled to the one piece fireplace combustion chamber.

22. (Previously Presented) The combustion chamber of claim 20, wherein the burner is a flat pan burner.

23. (Previously Presented) The combustion chamber of claim 22, wherein the flat pan burner is generally a U-shaped pan.

24. (Previously Presented) The combustion chamber of claim 20, wherein the burner comprises a portion of the floor panel.

25. (Previously Presented) The combustion chamber of claim 20, wherein the burner comprises:

a panel having a top surface and a bottom surface, wherein the panel comprises a mixture of refractory ceramic fibers and a binder, and wherein the panel defines at least one aperture to provide combustible gas to the top surface of the panel; and

a bottom portion coupled to the panel, wherein the bottom portion provides fluid communication of combustible gas to the at least one aperture.

26. (Previously Presented) The combustion chamber of claim 25, wherein the bottom portion comprises a mixture of refractory ceramic fibers and a binder.

27. (Previously Presented) The gas burner of claim 25, wherein the bottom portion comprises a metal pan.

28. (Previously Presented) The gas burner of claim 25, wherein the bottom portion and a portion of the bottom surface of the panel define an area, wherein the area provides the fluid communication of combustible gas to the at least one aperture.

29. (Currently Amended) A combustion chamber for use in a plurality of different types of fireplaces, comprising:

a substantially horizontal floor panel;

a top panel;

at least two side panels;

wherein the floor panel, the top panel and the side panels are molded to form a one piece fireplace combustion chamber; and

wherein the one piece fireplace combustion chamber is molded of a mixture of refractory ceramic fibers and a binder.

30. (Previously Presented) The combustion chamber of claim 29, further comprising a burner positioned to provide a flame within the one piece fireplace combustion chamber.

31. (Previously Presented) The combustion chamber of claim 29, further comprising a burner, wherein the burner comprises a portion of the floor panel.

32. (Canceled)

33. (Currently Amended) The combustion chamber of claim ~~32~~ 20, wherein the burner is a flat pan burner.

34. (Previously Presented) The combustion chamber of claim 33, wherein the flat pan burner is generally a U-shaped pan.

35. (Currently Amended) The combustion chamber of claim ~~32~~ 20, wherein the burner comprises a portion of the floor panel.

36. (Currently Amended) The combustion chamber of claim ~~32~~ 20, wherein the burner comprises:

a panel having a top surface and a bottom surface, wherein the panel comprises a mixture of refractory ceramic fibers and a binder, and wherein the panel defines at least one aperture to provide combustible gas to the top surface of the panel; and

a bottom portion coupled to the panel, wherein the bottom portion provides fluid communication of combustible gas to the at least one aperture.

37. (Currently Amended) The combustion chamber of claim ~~32~~ 20, wherein the bottom portion comprises a mixture of refractory ceramic fibers and a binder.

38. (Currently Amended) The combustion chamber of claim ~~32~~ 20, wherein the bottom portion comprises a metal pan.

39. (Previously Presented) The combustion chamber of claim 38, wherein the metal pan is generally a U-shaped pan.

40. (Currently Amended) The combustion chamber of claim ~~32~~ 20, wherein the bottom portion and a portion of the bottom surface of the panel define an area, wherein the area provides the fluid communication of combustible gas to the at least one aperture.

41-55. (Canceled)